

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Date: August 8, 2006

Jason Alexander CU, et al.

Confirmation No: 6671

Serial No: 09/820,451

Group Art Unit: 2161

Filed: March 28, 2001

Examiner: Chen, Te Y.

For: METHOD AND SYSTEM FOR PROVIDING A GENERIC SCALAR  
FUNCTION

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Commissioner for Patents  
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Alexandria, VA 22313-1450

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

**A. The Specification Provides an Adequate Written Description of the Invention  
Under C.F.R. 1.71**

Appellant respectfully submits that the Examiner's objection to the specification is without merit as the Examiner has completely failed to explain why the recited generalized scalar function, the phases of the column function, and the cooperation between the generalized scalar function and the column function are not sufficiently disclosed in the specification. One embodiment of the generalized scalar function described in the specification simulates the column environment by obtaining the data in a row and providing the data, entry by entry, to the column function. Specification, page 9, line 14-page 10, line 8. As expressly stated in the specification, the generalized scalar function fetches a row and provides a single entry from that row to a column function. Specification, page 9, lines 12-22 and page 8, line 10-page 9, line 2. It is determined whether there are additional entries in the row and, if so, these are also provided entry-by-entry to the column function. Specification, page 10, lines 1-8. The column function carries out its

operations in a *conventional* manner by performing the appropriate initialization, evaluation, and finalization phases. See, for example, specification, page 2, line 14-page 3, line 19; page 9, line 14-page 10, line 13. Thus, one of ordinary skill in the art would also understand how a pre-existing, conventional column function operates. The cooperation between the recited generalized scalar function and the pre-existing, conventional column function is also described. Specification, page 9, line 18-page 10, line 6 and Figure 4, items 158, 160, and 166. Accordingly, Appellant respectfully submits that the specification complies with 37 C.F.R. 1.71, providing an adequate description of the invention.

**B. Claims 1-26 are allowable under 35 U.S.C. § 101.**

Appellant respectfully submits that the Examiner's rejection under 35 U.S.C. § 101 is without merit as the Examiner has completely failed to explain why the recited "allowing" steps in conjunction with the remaining recitations do not cause any functionality to occur in the computer system. First, Appellant disagrees with the Examiner's conclusion regarding the "allowing" phrases. Further, the independent claims positively recite steps such as "simulating" a column environment and "performing" functions. As discussed in the specification, the simulating might include providing the row data entry-by-entry to the column function. Furthermore, the claims recite performing the column function on the at least one row "*to provide at least one output.*" (Emphasis added). Thus, the computer system would implement the column function and obtain an output. Consequently, the claims 1-26 do provide functionality in a computer system. As such, the claimed invention is directed to statutory subject matter.

Appellant also respectfully but vehemently disagrees with the Examiner's statement that the "application attorney. . . on record indicated that the instant invention deals with reversing a matrix (or a table)." During an interview and in order to improve the Examiner's understanding of the

present invention, Appellant's attorney stated that the present invention could be thought of as transposing the matrix in that the method and system allow rows to be used (by a column function) as though the rows were columns. Appellant's attorney further stated during the interview and in subsequent remarks that this analogy was made only in order to aid the Examiner, and not to characterize the present invention. Moreover, even if the present invention did transpose a matrix or table in a database system, the present invention would provide a function in a computer system: changing the form or location of stored data. Consequently, Applicant respectfully submits that the Examiner's rejection under 35 U.S.C. § 101 is incorrect.

**C. Claims 1-26 are allowable under 35 U.S.C. § 112, Second Paragraph.**

Appellant respectfully submits that the applied rejections under 35 U.S.C. § 112 are without merit as the Examiner has completely failed to explain why claims 1-26 are indefinite for failing to point out and distinctly claim the subject matter that the Applicant regards as the invention.

As recited in the claims, the generalized scalar function is used to simulate the column environment for the row. The generalized scalar function is described in the specification and depicted in the figures. See, for example, Specification, page 8, line 10-page 9, line 2. See also, page 9, line 12-page 10, line 8 and Figure 4, items 154, 156, 162, and 164. The specification even states that in one embodiment: "the steps 154 [fetch row], 156 [provide first entry in row to column function], and 164 [provide next entry in row to column function] . . . **are used to simulate the column environment** for the rows 6, 7, or 8 that is input as an argument to the generalized scalar function." Specification, page 9, lines 16-18. The cooperation of this embodiment with the column function is also described and depicted. Specification, page 9, lines 12-18; page 10, lines 1-8 and

Figure 4. Consequently, when read in light of the specification, Appellant respectfully submits that the recited generalized scalar function is clear and definite.

The column function operates in a conventional manner by performing the *conventional* phases of initialization, evaluation, and finalization. Specification, page 2, line 14-page 3, line 19; page 9, line 18-page 10, line 13; and Figure 4, items 158, 160, and 166. Thus, these phases are well understood by those of ordinary skill in the art. Consequently, the recited generalized, scalar function, the column function, and their cooperation are and definite. Accordingly, Applicant respectfully submits that the Examiner's rejection under 35 U.S.C. § 112 is incorrect.

**D. Claims 1-26 Are Not Unpatentable Under 35 U.S.C. § 102**

Appellant respectfully submits that the applied rejections of claims 1-26 under 35 U.S.C. § 102 are without merit as the Examiner has completely failed to explain why Melton teaches or suggests the method, computer-readable medium, and system recited in claims 1-26.

Appellant notes that in an Office Action dated March 30, 2005, the Examiner expressly stated that Melton “fails to disclose a specific instance of a generalized scalar function linked to a column function (or running and moving sequence function) as specified by a user.” Further, Melton fails to teach or suggest the recited receiving the at least one row as an argument and simulating a column environment for the at least one row using the generalized scalar function to allow the at least one row to be provided to the column function as though the at least one row was a column. Appellant can find no indication in the cited portions of Melton that the functions of Melton are used with pre-existing column functions or that the generalized scalar function is used. Instead, Melton describes a specific set of row functions (“sequence functions) that “operate on ordered sets of rows and that require knowledge of or access to past values” and are written to search previously accessed rows or offsets. Melton, col. 1, lines 13-16 and col. 2, lines

10-45. Stated differently, the functions described in the cited portion of Melton are for rows, not columns, and perform specific operations on these rows. The cited SQL compiler of Melton also fails teach or suggests the recited generalized scalar function. This SQL compiler of Melton merely compiles Offset sequence functions. Melton, col. 4, lines 1-2. Thus, the SQL compiler merely allows the SQL executor to execute the sequence functions. Melton, col. 4, lines 12-14. Thus, Melton merely describes a system in which sequence functions are specifically written to perform operations on rows, the sequence functions are converted into executable instructions during compilation. Consequently, the cited portions of Melton fail to teach or suggest claims 1-26. Accordingly, Applicant respectfully submits that the Examiner's rejection under 35 U.S.C. § 102 is incorrect.

**E. Summary of Arguments**

For all the foregoing reasons, it is respectfully submitted that the specification provides an adequate description of the present invention and that claims 1-26 are patentable under 35 U.S.C. at the time the subject matter was invented. Thus, Appellant respectfully requests that the Board reverse the rejection of all the appealed Claims and find each of these Claims allowable.

Very truly yours,

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